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ABSTRACT

A study of post degree elementary interns at the University of Saskatchewan (Canada) (N=25) was conducted to determine the main sources of information they employed in decision making related to teaching and relationships in the school. The study focused on: (1) the extent to which interns used the knowledge base gained from education classes in planning decisions for teaching and while teaching; and (2) what other sources of knowledge influenced their decision making. Data were collected by conducting a structured interview with students and doing a similar interview with cooperating teachers as a check on how much knowledge they had given the interns. The interns were asked to rate the education courses taken in terms of usable knowledge they had gained from the classes. Cooperating teachers and interns were questioned on initial perceptions of the internship prior to classroom work actually beginning. These data were collected to determine the correlation between the preconceived notions of internship and reality. Also, each intern was videotaped for two lessons, one in mathematics and one in language arts. The tapes were analyzed for certain teacher behaviors and correlations were determined between teaching scores, perceptions, and the origins of the knowledge base. (Author/LL)

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ABSTRACT

An intensive study of twenty-five post degree elementary interns was conducted because these interns were the first post degree interns who had taken one full year of classes before interning rather than just one term of classes taken by previous post degree interns. The main focus of the study was to determine:

(a) the extent the interns used the knowledge base gained from education classes in the decisions they made while planning for teaching and while teaching; and,

(b) what other sources of knowledge influenced their decision making.

The data were collected by conducting a structured interview with the interns and doing a similar interview with the cooperating teachers as a check on how much knowledge they had given the interns. The interns were asked to rate the education courses taken in terms of the usable knowledge they had gained from the classes. Other information collected related to minor concerns. Cooperating teachers and interns were questioned on initial perceptions of the internship prior to classroom work actually beginning. These data were collected to determine the correlation between the pre-conceived notions of internship and reality. Also, each intern was videotaped for two lessons, one in mathematics and one in language arts. These tapes were analyzed for certain teacher behaviours and correlations were determined between teaching scores, perceptions, and the origins of the knowledge base.

ABOUT THE AUTHORS

Dr. Janet M. Johnston was a full professor in the Department of Curriculum Studies and Coordinator of Field Experiences in the College of Education, University of Saskatchewan. She has presented her research in the fields of supervision and effective teaching in numerous publications and in invited lectures and workshops across Canada and in England. She retired as Assistant Director of the Battle River School Division in western Saskatchewan.

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THE KNOWLEDGE BASE FOR INTERNS' TEACHING DECISIONS

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INTRODUCTION

The knowledge used by intern teachers when making decisions related to teaching and to relationships with school personnel was investigated as part of a larger study which evaluated the Elementary After-Degree Program. The question as to the sources of knowledge used by interns when making decisions has interested the investigator for some time. We have all heard education students say, "The practicum is the best part of the program." "You really learn to teach out there!" or, "I learned more in the last four months than I did in the first three years of classes." If indeed these comments are true, then the practicum may be more like an apprenticeship than an internship. An apprenticeship, according to the Oxford Dictionary is when a novice learns on the job and is instructed by the employer. An internship is defined as an advanced student or a recent graduate who assists a professional in practice and gains practical training. This seems to say that during the internship the theory learned in classes is applied in order to complete the practical work under the supervision of the practising professional. Comments of education students do not really support this application of theory to practice. The investigator has had fears that the four month internship at the University of Saskatchewan could be more like an apprenticeship with little direct relationship to educational theory. The major question guiding the investigation was, "What are the main sources of information used by interns when they make decisions related to teaching and their relationships in the school?"

A review of the literature related to decision-making by student teachers produced very little information on the knowledge sources used by the students. Some authors have been examining the process of decision-making of experienced teachers. Clark and Peterson (1986) note that Shavelson (1973) feels that skill in teaching is effective decision-making as each teaching act is a result of a conscious or unconscious decision. Clark and Peterson (1986) indicated that the availability of detailed knowledge structures related to a particular teaching situation provide the experienced teacher with the tools required to try new activities, but they do not believe this is true of the novice. They also indicate that the more effective teachers are better at perceiving and utilizing information gained during classroom interaction and that one might be wise to train teachers to perceive, analyze and transform their perceptions of the classroom to help them become better decision-makers. Borko and Shavelson (1983) recommend that the field experience provides student teachers with the opportunity to practise being decision-makers in the "complex, uncertain environment of the classroom" (p. 221). They suggest that student teachers should be able to risk making a decision to change a plan mid-lesson in response to the students or to other factors.

However, Berliner's (1986) study, which compared the novice and the expert teachers, indicated that the novice does not think or act in a manner similar to the expert and that different information would have to be used for the novice. Tabachnick and Zeichner, and Adler (1984) noted that little is known about the thinking and actions of novice teachers, but they do provide evidence to indicate that relationships do exist between the thoughts of student teachers and their actions in the classroom.

Some evidence provided by Lortie (1975) throws doubt on the hopes of the existence of professional knowledge being used by teachers in decision-making. He indicates that teachers internalize models of good teaching while they themselves are students and that formal pedagogical training, including student teaching, modifies these ideas very little. On the other hand Borko *et al* (1987) shed more light on the hope that student teachers use professional knowledge to change their teaching practices. They found that clinical field experiences helped student teachers to operationalize their conceptions of teaching. These student teachers were provided with a safe environment where they could test their ideas and receive feedback on their trials. Borko goes on to indicate that, "the clinical field experience gives opportunity for student teachers to translate and adapt their *declarative knowledge* (knowing what) into a system of *procedural knowledge* (knowing how to)" (p. 89). The declarative knowledge is what Lortie referred to, in that it is the knowledge which the student teacher gained through classroom observations of their own teachers.

POPULATION AND DATA COLLECTION PROCEDURES

The population for the study was all of the interns in the Elementary After-Degree Program. The interns had enrolled in the College of Education in September of 1986. During Term 1 and Term 2 they were enrolled in 12 half courses in education. In Term 3 they completed a three week student teaching experience. Some of the interns enrolled in an elective course after student teaching. Their ages ranged from 22 to 32 years with the average age being 24 years. The average grades received in classes were in the seventies except for two who received averages in the eighties. All of the interns were admitted to the College on the basis of their performance in a structured interview and their previous grades. The interns began their internship in the last week of August, 1987. One of the interns was unable to participate in the study as the principal objected to us video-taping in his school. The 23 remaining interns were located in schools that varied from a three room rural school to large urban schools.

Data collection for this part of the study involved the following procedures:

(a) A structured interview consisting of fourteen questions which focused on their sources of knowledge for decisions relating to various aspects of in-class teaching; their opinions of their course work at the College; their perception of their three week student teaching experience; and their perception as to where they had improved the most during the internship,
(b) they were asked to indicate in writing which College of Education classes were most beneficial and how they had helped,
(c) they were asked to respond to 22 descriptors which focused on classroom teach-

ing behaviours, relationships with school personnel, and two questions related to school environment.

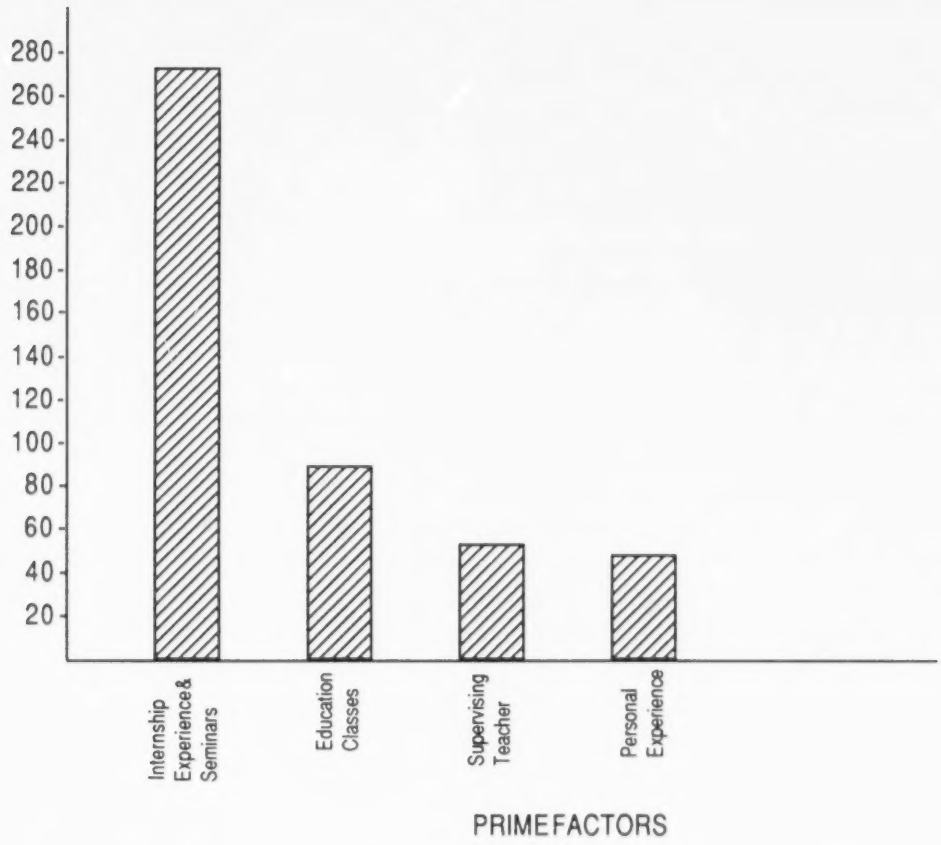
Their written response was to indicate the most important source of information for decision making in each situation suggested by a descriptor. They were instructed that if they indicated two sources, the first source listed would be considered the more important. The data collection for each intern took from one and a half hours to two hours. All of the data were collected between November 23 and December 4, 1987.

The written notes from the structured interview were analyzed for each question and the main factual information was identified. The information from the written opinions of what benefits they had gained from each class were analyzed and information was tabulated for each class. Similar analysis was conducted of the main sources of information identified for each of the 22 descriptors. The data were reviewed to determine prime factors related to the source of information used by interns when making decisions related to teaching.

PRESENTATION AND DISCUSSION OF DATA

Four prime factors, or sources of knowledge for decision-making which were most frequently cited, emerged from the analysis of the data. They are shown in Graph 1. The prime factors in order of importance are: the internship, education classes, the supervising teacher, and prior personal experiences. The "internship factor" was interpreted from the data to mean the actual teaching experience and related teaching experiences, the internship seminars and the book which contains the content for the seminars, and the supervision process used by the supervising teacher. The internship was a prime factor in decisions related to the specific aspects of teaching presented at the internship seminars as well as to one of the main goals of the internship which is; to become a self-evaluative teacher. Graph 2 shows that the internship was most influential as a source of decision-making for twelve of the twenty-two items for which the interns were asked to identify the major source of decision-making information.

Decisions in the areas of teacher questioning and structuring were cited by 65 per cent of the interns as being influenced by the internship. Interns received seminar instruction on ways of increasing the clarity of their questions through avoiding the use of negative questioning patterns. They also receive instruction on levels of questioning, directed questioning with wait-time, and the need to distribute questions equitably among students. At the seminar the interns and their supervising teachers do exercises to become familiar with the content. The interns are asked to provide much of the feedback on questioning themselves by audio taping lessons and writing out the questions they asked during the lesson. If the question was asked in an unclear manner, they were to re-write the question so as to assure clarity. The College supervisors check the interns' analysis of the questions. Thirty-eight per cent of the interns felt that education classes were the second source of information for decision-making in the area of questioning. They indicated that levels of questioning were taught in two classes.

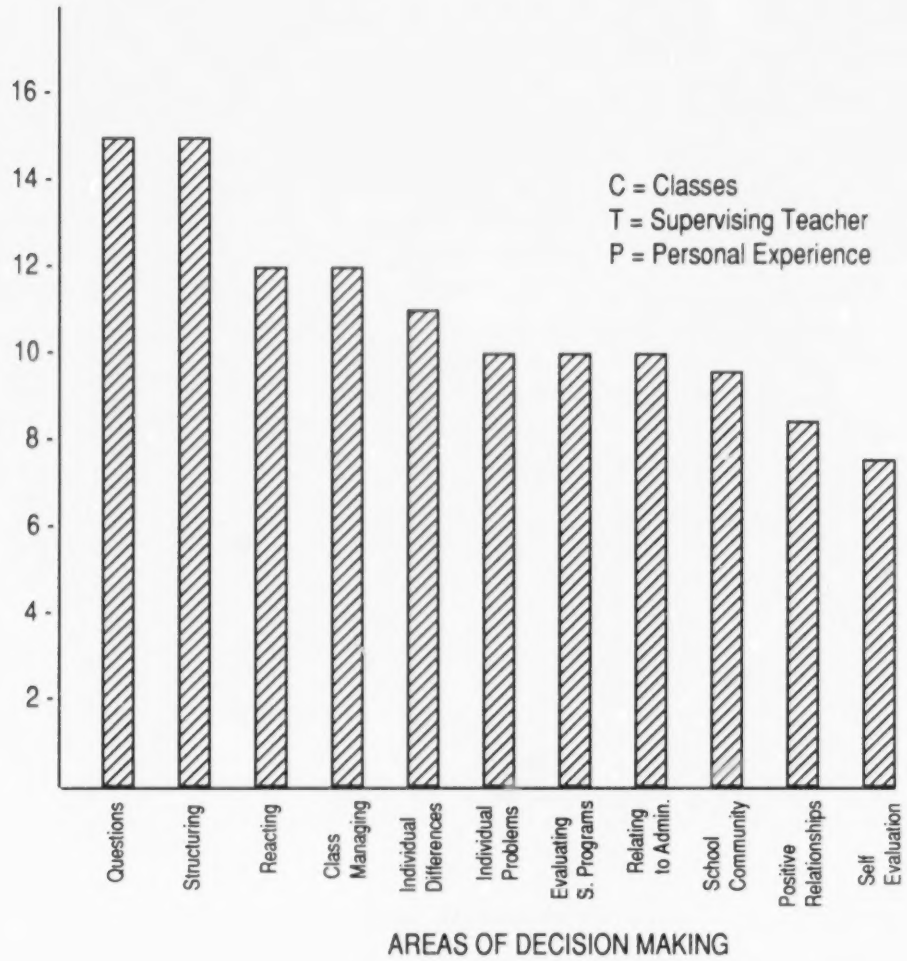


Graph 1: Four Prime Factors for Decision Making

Teacher structuring refers to the organization of the presented lesson and the extent to which a motivational set was used, the objectives and activities were identified, transitions and summaries were used, and the lesson was presented in the correct sequence. While 65 per cent of the interns identified the internship as the main source of information on structuring, about one per cent of the interns identified an education class as providing the knowledge for decisions related to structuring. Some others identified personal experiences in clubs and work experience where they had learned organizational skills as providing some information for decision-making in this area.

Fifty-two per cent of the interns relied mainly on the internship for information in learning how to react to their students and in how to manage a classroom. The internship was the only factor identified as contributing to information on reacting. One intern indicated that they were told in classes that they should respond positively to students, but they were never told how to be positive. The internship seminars gave them the "how to" information. In the area of classroom management, the supervising teacher and classes were prime influences for 48 per cent of the interns. The interview data on classroom management, despite having had nearly six seminar hours on the topic, indicated that two educational psychology courses had provided useful information and that they had attained what they wanted in classroom management, and that they were still working on improving. One intern said, "I made up my mind to be firm

before I came here, because I do not like slack teachers." The interns, as a group, seemed to have better than average management skills, probably because of their desire to be effective managers. Three interns spoke of previous work experience with children as having helped them with their management techniques.



Graph 2: Internship as Prime Factor (Experience, Seminars)

Interns were divided as to where they gained information for decisions related to acquiring presentation skills that would motivate their students. Thirty-four per cent said that the internship was the prime source while 14 per cent indicated that the supervising teacher was the main influence and another 14 per cent cited an education class. One intern responded by stating, "It can't be taught." Those who indicated that the supervising teacher was the main source of information were gaining the information by observing the teacher and picking up ideas on being a motivated presenter who was also very clear in providing explanations.

In the areas of learning to handle individual differences, individual behaviour

problems, and gaining the ability to evaluate students' progress while actively teaching, the internship was cited as being the prime source of information for decision-making by 23 per cent of the interns. The supervising teacher was the secondary source of information for dealing with the individual differences and behaviour problems and education classes were the third source. The second source of information for evaluating student progress while teaching was an Educational Psychology class and the supervising teacher was the third source. During the interviews, the interns made many references to the ability level of the class and of individual students. They realized that many students required either more or less challenging work and they seemed troubled that these problems were not being attended to by the teacher. The interns referred to their class in the area of exceptionality when speaking of individual differences. The interns may have emphasized the problems of individual students because many of them were doing individualized work while the supervising teacher was teaching the rest of the class. Several interns had searched out and read books to help them be more effective with exceptional children.

The next two areas, learning to relate with administrators and learning how to build community-school relationships, focus on the socialization of the intern to the school setting. The first two internship seminars were partially devoted to the area of professional attributes and the interns receive a copy of the Saskatchewan Teachers' Federation "Code of Ethics." In addition, the College Supervisors kept a watchful eye on the interns' social skills and emphasized the need to present a positive image of the College of Education. Therefore, having the internship cited as the main source of information for decisions in these two areas was not surprising. The second source of information for building community-school relations was a course in Educational Administration, while personal experience was the second source of information for relating with principals. The previously cited Educational Administration course was the third source for learning to relate to principals. The interns in rural placements were very aware of the social structure of the town and what was or was not acceptable behaviour for a teacher.

For the next aspect of teaching, developing positive relationships with students, 35 per cent of the interns relied on the internship for decision-making information and 17 per cent relied mainly on the supervising teacher. The remainder of the interns cited a variety of sources such as a workshop they had attended, a book they had purchased, an Educational Psychology class and personal experiences. The interns seemed to be searching for information in this area and this could signal an area which is not receiving enough attention.

Thirty-five per cent of the interns made decisions concerning their self-evaluation tasks from information received from the internship experience while the supervising teacher was identified by 13 per cent as being the primary source. Twenty-one per cent made self-evaluation decisions by using personal experience. To be able to be self-evaluative is one of the goals of the internship program and the results on this item were not encouraging. During the structured interview, the interns were asked to identify areas of teaching in which they believed they had made the most improvement and those in which they felt they had not improved sufficiently. They were also asked

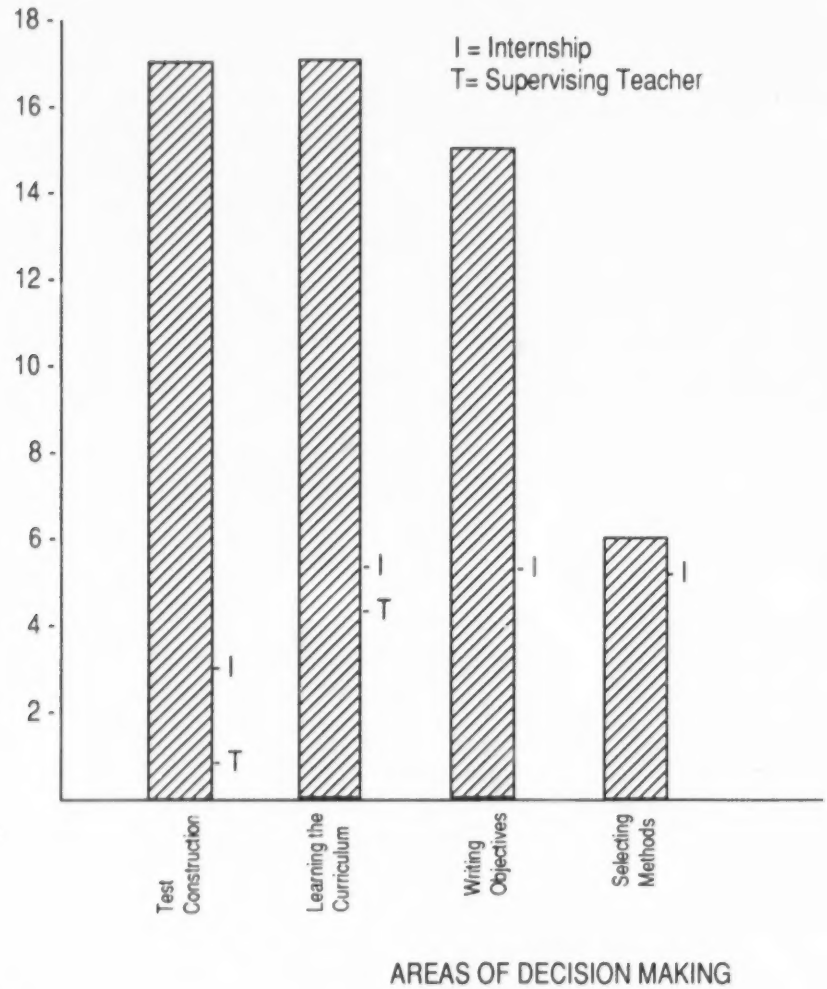
to what they attributed the improvement or the lack of improvement. Nearly all of the interns identified and discussed intelligently their areas of improvement and the areas where they believed they still needed to improve. Many interns referred to the feedback received from data collection as the important factor in helping them make decisions about future teaching. One intern said, "I am amazed how the data collection has helped me so tremendously and I feel positive and happy about what is happening." Another intern indicated that when she looked back over her internship she could see how she had steadily improved. This was something that really thrilled her although she then went on to say that she and her supervising teacher had a very poor working relationship. On the other hand, one intern said, "The statistics and analysis took away from focusing on teaching and the students."

The interview information seemed contrary to the written responses concerning self-evaluation in the light of how ably the interns responded to the questions which asked them to be self evaluative of their teaching. Another fact that seems contradictory relates to the interns excluding the supervising teacher from their definition of the internship despite talking about the positive results from receiving data collected. The contradiction might be explained by the fact that the interns are responsible for identifying the professional targets for data collection on their lesson plans and they are encouraged to prepare the data collection instrument for the supervising teacher. This may cause the intern to perceive the data as helpful, while the efforts of the supervising teacher in data collection are ignored.

The second most important prime factor in providing knowledge for intern decision making was education courses. Graph 3 displays the areas for which education classes were the prime factor. The courses most frequently identified as being helpful by the students when making decisions on test construction, writing objectives and selecting methods were: the science methods course; math methods (they felt that the textbook had been very useful); reading methods; an educational psychology course on test construction; and, the generic teaching course. They complained about time being wasted in some classes because of an apparent lack of content and that the methods courses focused too much on the very early grades.

Seventy-four per cent of the interns identified their educational psychology course on test construction as the prime source of information for evaluating students. Thirteen per cent felt that the experience of making tests and analyzing the results was providing them with the main information. These interns also indicated that the educational psychology course had helped them in evaluation.

The reactions of the interns concerning their knowledge level of the elementary curricula was quite varied. Seventy-four per cent of the interns identified help from two methods courses in which they had been given assignments that required them to use the curriculum guides. Fifty per cent of the interns believed that the time to learn about the curricula was when they were in the school. They believed that as they gained teaching experience they would continue to become more familiar with curricula. Twenty per cent of the interns believed that the methods courses should provide an overview of major concepts for the subject from kindergarten to the eighth



Graph 3: Education Classes as Prime Factor

grade. The remainder of interns believed that the knowledge received and the time spent on curricula in the methods courses was adequate in light of the internship experience and the assistance given by the supervising teacher.

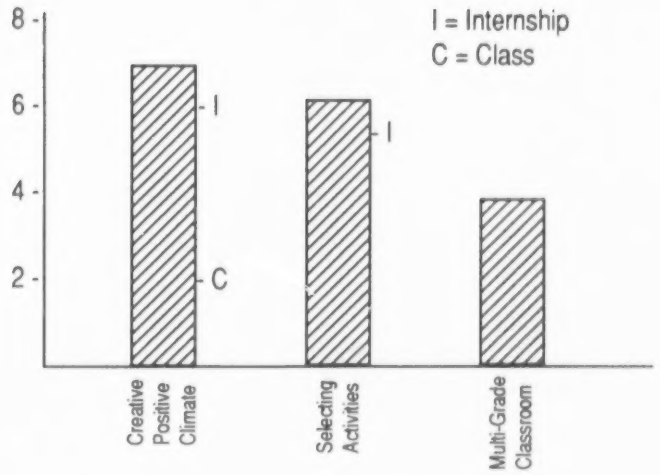
Interns felt that they had received adequate preparation in the writing of objectives from their course work. Seventy-four per cent cited their generic teaching course and an educational psychology course as the prime source of information. Twenty-two per cent saw the internship seminars as the prime source of information. They indicated that they saw objectives as being very necessary. Several iterns commented, "You have to have them," or, "You can't teach without them." They emphasized the need for objectives when discussing planning as they indicated that their plans would become minimal when they became teachers, but that they would always identify their objectives. One intern felt that objectives were "much ado about nothing" and said, "Why do them? When I'm a teacher they won't expect them out there!"

Twenty-six per cent of the interns identified education courses as the prime source of knowledge when making decisions concerning methods. They most frequently cited their science methods and said that they were using methods learned in this course in other subject areas as well. Twenty-two per cent of the interns felt that they were gaining the most information on methods from internship and 17 per cent felt that they had gained the most of their information on methodology from observing teachers in the school. Supervising teachers are encouraged to arrange for the interns to observe other teachers in the school and usually they select a colleague whom they believe has expertise in certain "styles" of teaching. An additional 17 per cent indicated that they used past experience or "what works" when selecting methods to be used.

The interview data suggests that when interns were selecting a method to use, three main factors were considered. They were trying to match the format of the content to the students, to manage student activity, and to provide a variety of methods. Forty-three per cent of the interns were primarily concerned that the method selected would be suitable for the students and the content to be taught. The 17 per cent who were primarily concerned with management, were concerned whether or not the method would cause "off-task" behaviour, and, hence, a management problem. The third factor, variety, was cited as the main concern by 17 per cent of the interns. One intern considered that what was happening in the school was important when selecting which method to use. Some respondents were referring to "variety" not just in terms of their own teaching, but considering what had been happening in the classroom as a whole. The interns spoke of making things concrete, having learning centers, experiments, small group work and inquiry. Two interns identified the selection of methods as being at the "trial and error" stage.

The third source of knowledge used by the interns in their decision-making was the supervising teacher and this information is shown in Graph 4. The supervising teacher was identified as the prime source of information in three of the twenty-two areas considered. These were in the areas of creating a positive environment in the classroom, selecting activities, and in learning how to teach in a multi-grade classroom. Thirty per cent of the interns identified the supervising teacher as their main source of information which allowed them to work on developing a positive climate in the classroom. Twenty-six per cent identified the internship as providing the knowledge and 14 per cent identified an educational psychology course on classroom management as their chief source of information.

The interns identified ten different sources of knowledge for selecting activities, but 30 per cent identified the supervising teacher as the prime source of information. Fourteen per cent of the interns identified the same class that they relied heavily on for knowledge on methodology. During the interviews, the interns indicated that the supervising teachers were very willing to share materials for activities but that the teachers encouraged them to come up with their own activities. The teachers encouraged them to prepare activity materials which would help them in their first year of teaching.



Graph 4: Supervising Teacher as Prime Factor

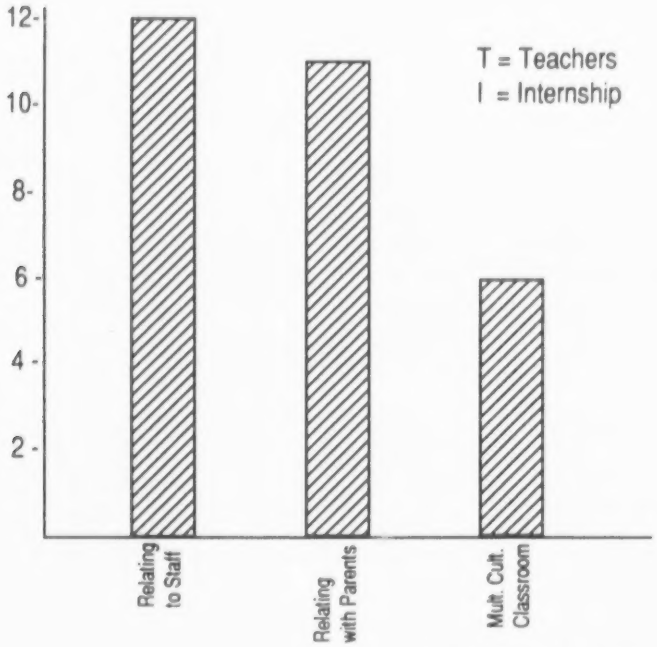
Three interns identified the supervising teacher as the primary source of knowledge for decisions regarding teaching in a multi-grade classroom and no other sources were given. The number of interns responding to the item was low and could well be related to whether or not the intern had experienced a multi-grade classroom.

The fourth prime factor identified and shown in Graph 5 was personal experience. Interns relied on knowledge from personal experience as the prime source of knowledge for decision-making for items related to becoming socialized into the school system except for relating to administrators and being self-evaluative.

For these two items the internship provided the primary source of knowledge. Fifty-two per cent of the interns relied on personal experience as the source of knowledge used in making decisions on how to relate to teachers and other staff in the school. Twelve per cent relied on knowledge from the internship when making such decisions. Twenty-six per cent of the interns relied on knowledge from personal experience when making decisions on how to work in a multi-cultural classroom. The supervising teacher provided this knowledge for 13 per cent of the interns. The response rate to this item was only 39 per cent of those queried. This rate might reflect that many interns had not experienced this type of a classroom or that the decision making knowledge base used by the 39 per cent was not developed in either education classes or the internship.

There were two interns who included prior personal experiences in their response for almost every item. One had been a swimming pool manager for several years and referred to teaching aquatics as a source for learning teaching skills and socialization skills. The other intern had been a Red Cross swimming instructor for 8 summers and associated teaching skills and socialization skills with teaching swimming. A third intern who had worked as a guide at an Interpretation Center referred

to his previous personal experience when identifying his source of knowledge for making decisions related to how he could be motivational in his presentations.



Graph 5: Personal Experience as Prime Factor

CONCLUSIONS

The four month practicum seems to be meeting the expectations of an internship. The experience cannot be labelled an apprenticeship when interns have identified the knowledge from the five seminars they attended, the seminar book, the teaching experience, and their education classes as the first or second source of knowledge for decision-making in 19 of the 22 aspects of teaching investigated. Had the interns identified only their supervising teachers, or, relied solely on personal experiences for decision making knowledge, then the practicum would have been an apprenticeship. There is evidence that, in the area of the knowledge base used by interns for making decisions related to socialization in the school, personal experience was relied upon. One intern did make the comment that when he was a student, he did not like slack teachers and that he was going to have good management. This is the type of behaviour that Lortie (1975) was referring to when he indicated that teachers internalize models of good teaching while they themselves are students and what Borko calls *declarative knowledge*. Obviously, this intern had internalized some discomfort as a student in poorly managed classrooms.

The comments of the interns on their ability to improve their teaching as a

result of the data collection they received would support the findings of Borko *et al* (1987) when they speak of a clinical field experience. Interns interviewed were indeed experiencing clinical supervision and there seems to be evidence that they are carefully studying their data and they see these data causing them to maintain or to change what they are doing in their teaching. They seem to see the data as being more important than the supervising teacher as data collector or interpreter of the data.

Another factor which seems to be keeping the experience an internship is the information on teaching which is presented at the seminars each month and the use of the seminar book. The book is very visible and is either on the top of the interns' work stations or in their planning binder. The book also has a "worn" look. Interns held the belief that the seminar content should be taught to them in an education class prior to the internship. The investigator believes that the reason the seminar information is seen as being very valuable by the interns may be because the interns are truly receiving theory and practice together.

REFERENCES

Alder, S. (1984). A Field of Study of Selected Student Research Perspectives Toward Social Studies. *Theory and Research in Social Education*, 12, 13-20.

Berliner, D.C. (1984). In Search of the Expert Pedagogue. *Educational Researcher*, 15, 5-13.

Borko, Hilda, *et al.* (1987). Student Teachers' Understanding of Teaching. *Teaching and Teacher Education*, 3, 77-91.

Borko, Hilda, and Shavelson, Richard J. (1983). Speculations on Teacher Education: Recommendations from Research on Teachers' Cognitions. *Journal of Education for Teaching*, 9, 210-224.

Clark, Christopher M. and Peterson, Penelope L. Teachers' Thought Processes. *Handbook of Research on Teaching*, Third Edition, Merlin C. Wittrock, Ed. New York: Macmillan Publishing, 1986, 255-296.

Tabachnick, B.R. and Zeichner, K. (1984). The Impact of Student Teaching Experience on the Development of Teacher Perspectives. *Journal of Teacher Education*, 35, 28-36.